CLAIMS

1. A process for the production of α-interferon comprising the steps:

i) inducing of human leukocytes by means of a virus,

ii) treating the leukocytes with an enhancing agent selected from

a) xanthine, pyrimidinol, pyrimidinone, theophylline, theobromine, enprophylline, hypoxanthine, 8-phenyltheophylline, 2-amino-5-bromo-6-methylpyrimidinol, 2-amino-6-methyl-4-pyrimidinol and thymine;

b) an organic solvent selected from the group consisting of non-aromatic ketones, aliphatic or cyclic amides, alkylated aliphatic or cyclic urea derivatives and aliphatic or cyclic sulfoxides;

or a combination of the compounds from a) with an organic solvent from b).

2. A process according to claim 1, characterized in that the leukocytes are monocytes.

3. A process according to any one of claims 1 and 2, characterized in that the enhancing agent is added at the same time or up to 4 hours after the virus induction.

4. A process according to any one of claims 1 - 3, characterized in that the virus is Sendai virus.

5. A process according to any one of claims 1 - 4, characterized in that the enhancing agent is theophylline.

6. A process according to any one of claims 1 - 4, characterized in that the enhancing agent is 2-amino-5-bromo-6-methyl-4-pyrimidinol.

SubA1

Sub A1

7. A process according to any one of claims 1 - 4, characterized in that the enhancing agent is thymine.

8. A process according to any one of the preceding claims, characterized in that the organic solvent is any of acetone, 2-butanone, 1,3-dimethyl-2-imidazolidinone, dimethylsulfoxide, N-ethyl-2-pyrrolidinone, 4-methyl-2-pentanone, N-methyl-2-pyrrolidinone, 2-pyrrolidinone, tetramethylene sulfoxide and N,N-dimethylacetamide.

9. A process according to claim 8, characterized in that the solvent is N-methyl-2-pyrrolidinone.

add A2